



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/526,272	04/12/2005	Roland Moser	2590-110	6640

EXAMINER
CHAPMAN JR, JOHN E

ART UNIT	PAPER NUMBER
2856	

MAIL DATE	DELIVERY MODE
08/01/2007	PAPER

23117 7590 08/01/2007
NIXON & VANDERHYE, PC
901 NORTH GLEBE ROAD, 11TH FLOOR
ARLINGTON, VA 22203

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/526,272

Applicant(s)

MOSER ET AL.

Examiner

John E. Chapman

Art Unit

2856

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1 and 3-10 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 April 2005 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>3/2/05</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. The drawings are objected to because the details are not reproducible for publication purposes.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. The figure or figure number of an amended drawing should not be labeled as "amended." If a drawing figure is to be canceled, the appropriate figure must be removed from the replacement sheet, and where necessary, the remaining figures must be renumbered and appropriate changes made to the brief description of the several views of the drawings for consistency. Additional replacement sheets may be necessary to show the renumbering of the remaining figures. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

2. The abstract of the disclosure is objected to because the use of legal terminology, such as "means" and "said," should be avoided. Correction is required. See MPEP § 608.01(b).

Art Unit: 2856

3. 35 U.S.C. 112, first paragraph, requires the specification to be written in "full, clear, concise, and exact terms." The specification is replete with terms which are not clear, concise and exact. The specification should be revised carefully in order to comply with 35 U.S.C. 112, first paragraph. Examples of some unclear, inexact or verbose terms used in the specification are:

Page 1, line 10, the use of legal terminology, such as "said," should be avoided.

Page 1, line 13, "one of its axis" should be --one of its axes--.

Page 1, line 14, "the measurement principle" is unclear.

Page 1, line 20, "responsible in imprecision it the measurement" is awkward.

Page 3, lines 14-15, the specification should be self contained and should not refer to the claims. Note that the claims may be cancelled, amended or renumbered.

Page 4, line 9, "we take." Writing in the first person should be avoided.

Page 4, line 26, "High" should not be capitalized.

Page 5, line 2, "apply" should be --applies--.

Page 5, line 13, "a motor function can be implemented" is unclear,

Page 9, line 15, "spotted" is unclear.

Page 9, line 17, "5" should be --12--.

Page 10, line 13, "plan" should be --plane--.

Page 10, lines 31-33, Fig. 9 does not show a 2D array of magnets.

Page 11, line 26, "It" should not be capitalized.

Page 12, lines 4-10, it is not clear how the electrodes 4' "point towards" in inner surface of the electret crown.

Art Unit: 2856

Page 13, line 24, "apply the void" is unclear.

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 3-10 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Regarding claim 3, it is not clear what is meant by "to derive the solicitation" in line 7.

In addition, there is no antecedent basis for "said support means" in lines 7-8.

Regarding claim 6, no steps are recited. In addition, the apparatus recited in claim 1 is incapable of performing the intended use as a bidirectional non-contact accelerometer or a bidirectional non-contact seismometer, since no bidirectional non-contact sensor is recited in claim 1.

Regarding claim 7, no steps are recited. In addition, the apparatus recited in claim 1 is incapable of performing the intended use as a bidirectional inclinometer or tiltmeter, since no bidirectional sensor is recited in claim 1.

Regarding claim 8, no steps are recited. In addition, the apparatus recited in claim 1 is incapable of performing the intended use as a noncontact gravimeter, since no non-contact sensor is recited in claim 1.

Regarding claim 10, no steps are recited.

Art Unit: 2856

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

7. Claims 1, 2 and 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Berstis (6,799,462) in view of Pelrine et al. (6,361,268).

Berstis discloses a gravimetric device comprising a diamagnetic element levitated above an arrangement of magnets (column 3, lines 28-32). The only difference between the claimed invention and the prior art consists in arranging the magnets in a two dimensional array. Pelrine et al. teaches providing a two dimensional array of magnets 76 in Fig. 5B in order to levitate a diamagnetic plate 58. It would have been obvious to arrange the magnets of Berstis in the two dimensional array taught by Berstis in order to provide a magnetic field having a high magnetic strength.

Regarding claim 2, it would have been obvious to use a Halbach 2D array in lieu of the array in Fig. 5B of Pelrine et al. in order to produce the largest diamagnetic force.


Regarding claims 6 and 7, it would have been obvious to use a gravimetric device to measure acceleration and inclination.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Berstis (6,898,970) discloses an accelerometer comprising a levitated diamagnetic mass (51).

Art Unit: 2856

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to John E. Chapman whose telephone number is (571) 272-2191. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


John E Chapman
Primary Examiner
Art Unit 2856